

MASTER DIRECTIVES



UNITED STATES MARINE CORPS

MARINE AIRCRAFT GROUP 12
1ST MARINE AIRCRAFT WING, MARFORPAC
FPO AP 96603-7150

GruO 3500.23A

DSS

JUN 01 1999

GROUP ORDER 3500.23A

From: Commanding Officer
To: Distribution List

Subj: MARINE AIRCRAFT GROUP 12 OPERATIONAL RISK MANAGEMENT PLAN

Ref: (a) OPNAVINST 3710.7R
(b) MCO 3500.27
(c) ALMAR 210-97
(d) WgO 3500.27A

Encl: (1) ORM Process Diagram
(2) In-Flight Process Diagram
(3) Risk Assessment Matrix
(4) Work Center Risk Assessment Worksheet
(5) VMA Risk Assessment Worksheet
(6) VMAQ Risk Assessment Worksheet
(7) VMFA/VMFA(AW) Risk Assessment Worksheet
(8) HMM Risk Assessment Worksheet
(9) Hazard Analysis Worksheet
(10) Condition Yellow Process

1. Purpose. This instruction prescribes the general operating instructions applicable to the establishment and effective implementation and application of the Operational Risk Management (ORM) process per the guidance contained in references (a), (b), and (d). It is to be used by all activities within Marine Aircraft Group 12. PARTICULAR ATTENTION SHOULD BE GIVEN TO THE ORM FRAMEWORK OUTLINED IN 6A AND 6B OF THIS INSTRUCTION.

2. Cancellation. GruO 3500.23.

3. Information. ORM is a systematic decision-making process used to identify and manage hazards that could influence mission success and endanger USMC assets. Enclosures (1) and (2)

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provide schematics on how this process works. It is a management tool intended to ensure informed decisions are made and approved at an appropriate level in the chain of command. Its purpose is to increase operational readiness and effectiveness by anticipating hazards and reducing their adverse effect on mission, equipment, property and personnel.

a. Reference (b) provides CMC guidance and a detailed overview of ORM. Reference (d) provides CG, 1ST MAW guidance on the implementation of ORM.

b. This instruction provides the essential procedures and guidelines necessary to implement ORM within MAG-12. It cannot and will not cover all situations which may arise, nor every detail involved in risk assessment. Commanders/Officers-In-Charge, flight leaders, and supervisors must be true to the spirit of ORM, not just the letter of the "law."

4. Guidance

a. The overall ORM goal for MAG-12 is to safely achieve the best training possible, and maintain the highest state of combat readiness possible within resource constraints.

b. ORM shall be incorporated at all levels of planning, scheduling and execution of missions within MAG-12.

c. ORM provides each Marine and Sailor the opportunity to acquire the knowledge and skills required to accomplish and maintain mission readiness while minimizing various levels of risk.

d. Risk levels are described by the interrelationship between hazard severity and mishap probability as they effect mission accomplishment. The risk assessment matrix at enclosure (3) depicts this relationship. The following risk levels shall be incorporated in all risk assessment tools:

(1) Low: At this risk level, the potential hazard severity is negligible. The mishap probability ranges from unlikely to seldom and is determined by aircrew/operator proficiency and operating environment. Risks associated with a mission in this category have little or no impact on mission accomplishment.

(2) Medium: At this risk level, the potential hazard severity is moderate. The mishap probability ranges from seldom

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to frequent and is determined by aircrew/operator proficiency and operating environment. Risks associated with a mission in this category may degrade mission capability in terms of the required mission standards. Acceptance of a medium level of risk shall only be approved by the Squadron Commander or Acting Squadron Commander.

(3) High: At this risk level, the hazard severity is critical. The mishap probability ranges from seldom to frequent and is determined by aircrew/operator proficiency, systems capability and operating environment. Risks associated with a mission in this category may significantly degrade mission capabilities in terms the required mission standards and have a significant probability of causing damage to property and/or injury to personnel. Acceptance of a high level of risk shall be approved only by the Group Commander or Acting Group Commander.

(4) Extremely High: At this risk level, the hazard severity is catastrophic. The mishap probability ranges from likely to frequent and is determined by aircrew/operator proficiency, systems capability and operating environment. Risks associated with a mission in this category may cause loss of ability to accomplish the mission and has a high likelihood of producing damage to property and/or injury to personnel. Acceptance of an extremely high level of risk shall only be approved by the Wing Commander or Acting Wing Commander.

e. Multiple risk items may increase the total risk to the next highest level. The exact number of multiples that causes the shift shall be identified by the squadron commander and indicate the appropriate approval level.

f. Risk Assessment Worksheets (RAWs) at enclosures (6) through (10) have been developed for aviation flying units by Type/Model/Series (T/M/S) aircraft and for aviation non-flying units. They shall be used as the primary risk assessment tool throughout the ORM process to assist Commanding Officers, mission planners, and schedulers in establishing a quantifiable level of risk.

g. Operational Risk Manager Instructor (ORMI). The ORMI is responsible for training and supervising squadron personnel in the use and application of risk assessment worksheets, the basic ORM principles, the five step process, and the three levels of ORM. He shall be an experienced aviator and attend the 1st MAW approved ORMI training course. The ORMI shall be the ORM

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"subject matter expert" within the squadron similar in scope to the Aircrew Coordination Training Facilitator.

5. Training

a. 1st MAW will provide initial, advanced, recurrent and squadron instructor ORM training for designated personnel assigned to MAG-12.

b. 1st MAW ORM training objectives are to impart an understanding of and the ability to apply the ORM process. ORM training consists of:

(1) The Five Step Process. A series of procedural steps which enable commanders to 1) Identify Hazards; 2) Assess Risk; 3) Decide/Develop Controls; 4) Implement; and 5) Supervise.

(2) Four Principles of ORM. A set of governing principles that enable commanders to make informed decisions with respect to risk. These principles include 1) Accept risk only when the benefits outweigh the costs; 2) Accept no unnecessary risk; 3) Anticipate and manage risk by planning; and 4) Make risk decisions at the proper level.

(3) Three Levels of ORM. Varying levels of ORM whose application corresponds to time phased sequenced events. The levels of ORM include 1) In Depth; 2) Deliberate; and 3) Time-Critical.

(4) Approaches to Managing Risk

(5) When to use ORM

(6) Risk Control Measures

(7) Risk Assessment Tools. A series of management tools which include 1) Preliminary Hazard Analysis (PHA); 2) Operational Analysis (OA); 3) ORM Matrix; 4) Flow Chart; 5) Scenario Analysis; 6) Timed Events Plotting; 7) Event Sequencing; and 8) Cause and Effect.

c. ORM Training Courses. The MAG ORMI shall provide initial and recurrent ORM training to subordinate unit personnel under their cognizance. Units shall conduct ORM training that is SPECIFICALLY applicable to the DAILY tasks associated with their particular operational unit. The following is an explanation of ORM training courses.

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(1) ORM Instructor (ORMI) Course. A course intended to "train the trainers." Emphasis is on providing training for unit ORMIs on ORM principles, ORM rules, levels of risk, risk assessment tools, risk management techniques, scenario analysis, team problem solving, and presentation methods.

(2) Initial User Training. A course that instructs personnel on basic ORM principles with emphasis on the five step process, four ORM rules, and task-specific application of the three levels of ORM with special emphasis placed on "Deliberate" and "Time-Critical" on-the-run ORM tools.

(3) Leadership Training Course. A course intended to train unit Commanders/ Officers-in-Charge, mission planners, mission commanders, and other key mission leaders. Emphasis shall be placed on ORM principle, rules, and risk levels with special consideration given to use of "In-Depth" and "Deliberate" ORM events and maintenance activities. Practical exercises utilizing the daily ORM framework, described in paragraph 6 below, shall be conducted. Detailed use of RAWs shall also be practiced.

(4) Recurrent Training. This is refresher training to be conducted annually by ORMIs at the user level.

6. Application

a. ORM in Non-Flying Units (MALS). While the ORM concept has been primarily developed for aircraft units, risk assessment principles and tools listed in paragraph 5.b. of this instruction should be used for non-flight mission planning and execution as well. Enclosure (4) provides a baseline RAW to assist in the ORM execution process. Additional unit-specific mission planning worksheets and hazard tracking database applications to aid in quantifying risk may be developed. Risk assessment shall be included in all pre-deployment planning and briefing.

b. ORM in Flying Units. Deliberate risk analysis shall be initiated by using applicable ORM tools along with the RAW. These tools are used by mission planners and flight schedulers to identify hazards well in advance, but a minimum of 48 hours prior to schedule execution. Units that have fully implemented the risk assessment portion of Squadron Assisted Risk Assessment (SARA) shall use only those portions of the RAWs not covered by

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SARA. Each unit shall outline ORM procedures for initial flight schedule planning in its Standard Operating Procedures (SOP).

(1) 48 Hour Analysis. Squadrons shall develop projected flight schedules as far in advance as necessary, but a minimum of 48 hours prior to execution. Projected flight schedule development and use is a planning tool for operational scheduling and is for squadron use only. At that point, a RAW must be completed for each flight/mission that produces a list of the potential causes of the hazards being encountered, followed by the establishment of control measures to minimize the effects of the hazard when encountered. Respective RAWs for T/M/S aircraft are located at enclosures (5) through (8). A hazard analysis worksheet is located at enclosure (9).

(a) The flight scheduler/planner shall fill out a RAW for each aircraft or each flight assigned as an event on the flight schedule. The scheduler/planner shall fill in all known information for the flight using the RAW. He shall mark the highest risk for each sub-matrix in the "48 hour" block of that sub-matrix. RAWs shall be filed by the flight scheduler in an easily accessible file or binder labeled by the day of the week/date in which the flight takes place.

(b) For all missions with a medium risk assessment value that cannot be mitigated, the OpsO and/or flight scheduler/planner shall so advise the Commanding Officer (CO). Additionally, the CO is required to sign each RAW involved in that mission. For all missions with a high or extremely high risk assessment, the CO shall seek appropriate approval on each RAW from the MAG-12 CO (high risk), or 1st MAW CG/Flag (Extremely high risk) via the MAG-12 CO.

(c) During the scheduling process, risk controls may be introduced by anyone involved to reduce the risk (for instance, squadron CO's may reduce a high risk mission by introducing a risk control measure that brings the risk level down to medium). In this case, the MAG CO's approval would no longer be required since the risk identified as high has been mitigated to medium risk through the application of risk management controls.

(2) 24 Hour Analysis. This is a key decision point intended to accomplish final verification of deliberate risk analysis efforts prior to mission brief and execution. Prior to the day of the flight, the Operations Officer (OpsO) and Director of Safety and Standardization (DSS) shall review the

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flight schedule and RAWs and make a final determination of the risk level. The CO shall be informed of all risks/changes that differ from those indicated on the 48 hour flight schedule/plan. If in agreement with the risk assessment, each (CO, OpsO, and DSS) shall sign the RAW under the "24 hour" block sub-matrix.

(3) Execution

(a) The mission/aircraft commander and/or flight lead shall reassess the risk at brief time and fill in the "FLIGHT BRIEF" block of each sub-matrix on the RAW. After review, signature and brief by the mission/aircraft commander and/or flight lead, the RAW shall be turned in to the ODO.

(b) If anything has increased the risk level from that previously approved, it is the mission/aircraft commander and/or flight lead's responsibility to seek approval from the appropriate approving authority via the CO or his designated representative.

(c) The flight leader/aircraft commander shall brief his crew on the highest identified risk(s) associated with the flight. He shall also identify and brief the risk(s) most likely to be elevated during the flight.

(d) ODOs shall ensure each aircraft commander has turned in a RAW prior to walking to their flight.

(e) In-flight

1 Once airborne, the flight shall not accept a mission change that will knowingly increase the risk. This does not preclude the use of sound judgement and time-critical ORM by mission/aircraft commanders and/or flight leads to deal with unforeseen changes such as weather or aircraft status.

2 When situations occur that increase the risk beyond that previously approved, the mission/aircraft commander and/or flight lead shall make a reasonable effort by all means available to request/receive permission from the appropriate approving authority before proceeding with the higher risk mission.

3 The in-flight ORM process is outlined at enclosure (2).

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(f) The ODO shall not act as risk approval authority for airborne flights, but merely serve as the conduit for obtaining appropriate level approval.

(g) Each RAW shall be maintained for the duration of the respective flight and may be disposed of once the flight/mission is safely completed.

(4) PMCF flights shall not be assessed until the day of the maintenance flight.

(5) Risk Condition Yellow (Transitional Periods)

(a) Squadrons embarking upon a new evolution, or participating in an evolution that the unit has not been exposed to for an extended duration, are in a state of increased risk that may not be reflected in the individual RAWs. This increased state of risk is defined as Risk Condition Yellow. This process is outlined at enclosure (10).

(b) During Risk Condition Yellow, the unit is in an overall medium risk level until adequate action has been completed. A heightened sense of awareness shall be exercised when planning and conducting flight and maintenance operations. Proper advance planning and aggressive use of control measures can reduce the risk associated with these time periods. Control measures may include the use of classroom instruction, briefs, night labs, training models, simulators, tactical unit flight training, or other techniques deemed appropriate by the unit commander.

(c) Evolutions which place a squadron in Risk Condition Yellow include unit training deployments, operations in desert environments or mountainous terrain, shipboard ops, shipboard night ops, NVG's, NVG shipboard, NVG ordnance, aerial refueling, AR on NVG's, LATT, ACM, etc.

(d) The unit commander shall be required to gain approval from the MAG-12 CO in order to cancel Risk Condition Yellow for his respective unit. The Group Commander shall advise the Commanding General upon cancellation of Risk Condition Yellow for units under his charge.

7. Squadron Assistance Risk Assessment (SARA). SARA is a computerized risk assessment tool. Upon completion of SARA training by each squadron system manager and user, SARA shall be

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used as the primary ORM tool to streamline mission planning, scheduling and execution. Additional In-Depth risk analysis for future long-range contingency/exercise deployment planning will be greatly enhanced by full utilization of SARA capabilities. SARA applications include the following:

- a. T/M/S specific T&R CORE COMPETENCY currency tracking.
- b. OPNAVINST 3710.7_ required training (i.e., annual instrument/NATOPS checks, ACT checks, instrument approaches/time flown last 6 and 12 months, WST/Physiology, etc.).
- c. Wing, Group, Squadron SOP guidance (i.e., LATT, crew day, proficiency, etc.).
- d. Squadron guidance (i.e., selective scheduling, human factors/STAN board input, CO's preferences, etc.).
- e. Pilot-specific upgrade syllabi (i.e., MAWTS prep, IUTs, A/C Commander, boat preparation, MUE(SOC) standards, etc.).

8. Action

a. MAG-12. The MAG-12 CO shall ensure assigned units implement the provisions of ref (d) and this instruction. He shall be assisted by the MAG-12 DOSS and Operations Officer as follows:

(1) MAG-12 DOSS

(a) The DOSS shall be designated in writing by the MAG-12 CO as the overall ORM Coordinator for the Air Group. He is responsible for the comprehensive management of the Group's ORM process and shall complete the ORMI course.

(b) The DOSS shall also be designated as the ORM Coordinator for his T/M/S aircraft and shall recommend to the Commanding Officer additional staff personnel to serve as ORM Coordinators for each T/M/S aircraft attached to the Group. The MAG-12 CO shall designate these personnel in writing as ORM Coordinators for their respective T/M/S aircraft. The DOSS shall ensure these individuals complete instruction in the ORMI course.

(c) The DOSS shall consolidate unit inputs for recommended changes to the RAWs for each respective T/M/S aircraft. This responsibility includes review and refinement of

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aviation specific risk management procedures for both flight operations and aviation maintenance with the main objective being standardization within aircraft communities. Recommended changes shall be forwarded to 1st MAW G-3 via MAG-12 CO for review.

(2) MAG-12 Operations Officer. The Operations Officer, assisted by the MAG-12 DOSS, shall conduct monthly TEEP review and analysis conferences with squadron operations departments in order to manage short and long-term mission risk trends. Periods of mission saturation shall be identified to facilitate management of risk through event planning and asset management.

b. Unit Commanders

(1) Ensure that ORM is integrated in all planning and execution for the unit to include all necessary training.

(2) Ensure that each Marine and Sailor assigned to the command is aware of the ORM program and completes the appropriate level of ORM training.

(3) Incorporate ORM principles into regular training efforts, mission planning, and mission execution.

(4) Request appropriate approval from higher headquarters for missions assigned "high" or "extremely high" risk codes.

(5) Recognize and assess periods of mission saturation and advise the Group Commander of steps taken to reduce risk through event planning and asset management.

(6) Provide appropriate input regarding recommended changes to ORM procedures and RAW's.

(7) Ensure an adequate number of ORMIs are trained within the unit and verify that initial and recurrent ORM training is accomplished and documented.

c. ORMIs Within MAG-12

(1) Determine squadron-specific ORM training objectives based on ORM training goals.

(2) Plan and execute annual ORM recurrent training plan as required.

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(3) Ensure that ORM training is accomplished and ensure training is documented in each individual's training record.

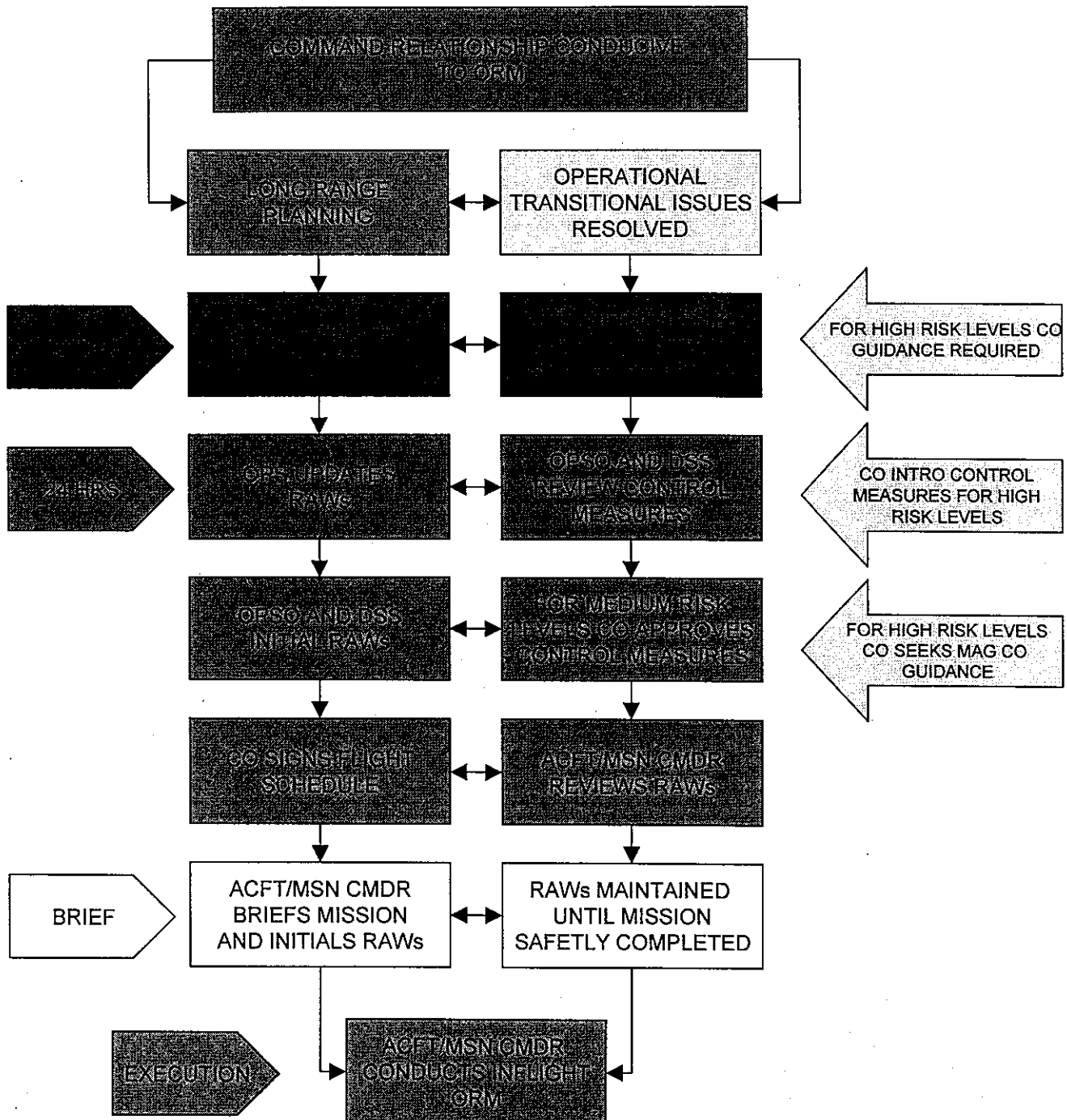
(4) Train all squadron aircrew on the use of T/M/S-specific RAWs.

9. Summary. ORM is a structured approach toward conducting naval aviation within the Marine Corps. The process compliments existing NATOPS and SOP programs and enhances the Marine Corps' ability to preserve war fighting assets and resources while executing the MAG's primary mission. Finally, it affords the commander a formalized tool to manage safe and efficient maintenance procedures and flight operations.

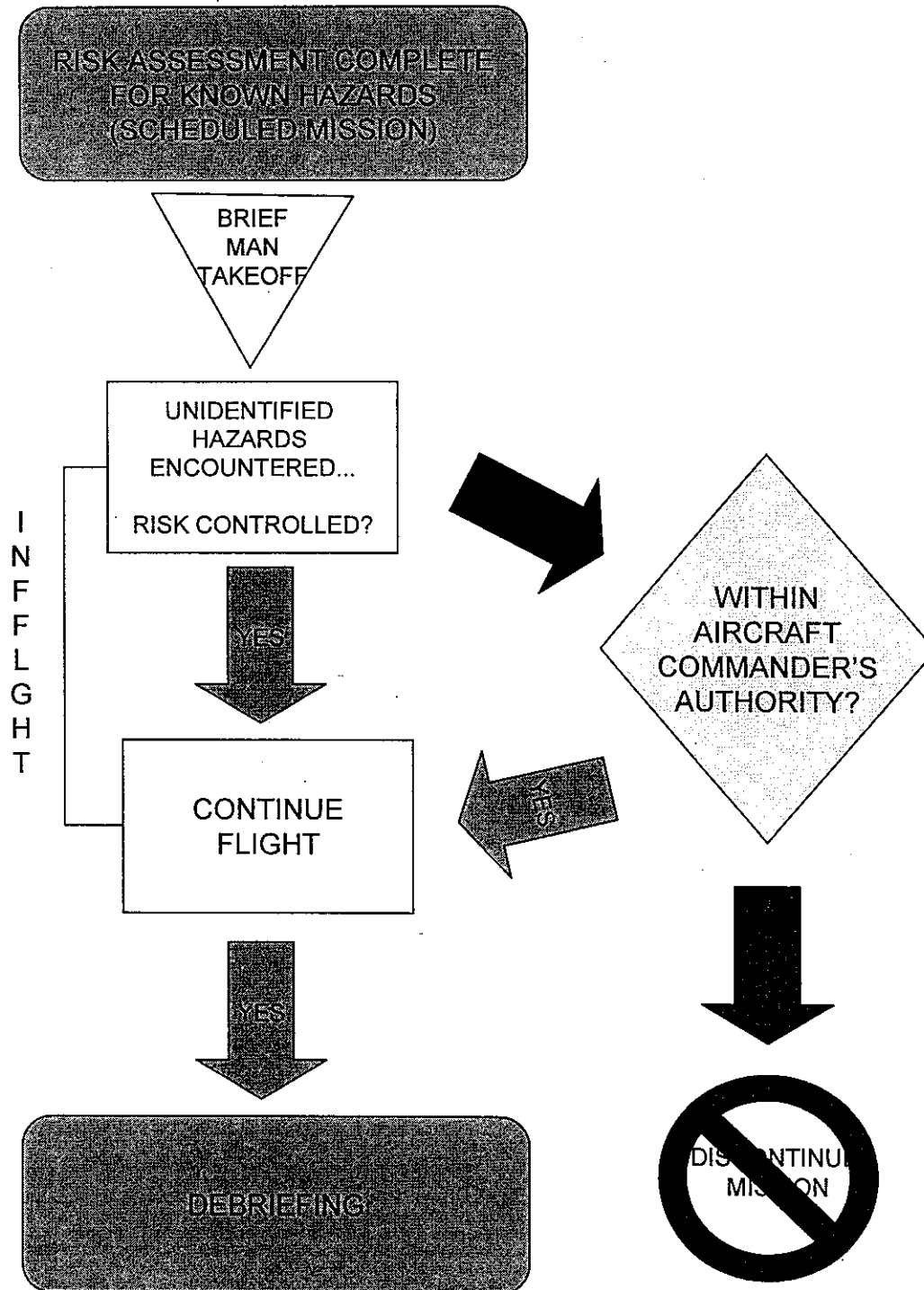

J.F. FLOCK

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ORM PROCESS



INFLIGHT ORM PROCESS



RISK ASSESSMENT MATRIX

RISK ASSESSMENT MATRIX		PROBABILITY			
		LIKELY	OCCASIONAL	SELDOM	UNLIKELY
		A	B	C	D
SEVERITY	CASTASTROPHIC (CATEGORY I)	HIGH	HIGH	HIGH	HIGH
	CRITICAL (CATEGORY II)	HIGH	HIGH	HIGH	MEDIUM
	MODERATE (CATEGORY III)	HIGH	MEDIUM	MEDIUM	LOW
	NEGLIGIBLE (CATEGORY IV)	MEDIUM	LOW	LOW	LOW

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SEVERITY
(CATEGORIES)

CATASTROPHIC: (CATEGORY I); The hazard may cause death, loss of facility/asset or result in grave damage to national interests.

CRITICAL: (CATEGORY II); The hazard may cause severe injury, illness, property damage, damage to national or service interests or degradation to use of assets.

MODERATE: (CATEGORY III); The hazard may cause minor injury, illness, property damage, damage to national, service or command interests or degradation to efficient use of assets.

NEGLIGIBLE: (CATEGORY IV); The hazard presents a minimal threat to personnel safety or health, property, national, service or command interests or efficient use of assets.

PROBABILITY

LIKELY: (A); Likely to occur immediately or within a short period of time. Expected to occur frequently to an individual item or person or continuously to a fleet inventory or group.

OCCASIONAL: (B); Probably will occur in time. Expected to occur several time to an individual item or person or frequently to a fleet, inventory or group.

SELDOM: (C); May occur in time. Can reasonably be expected to occur some time to an individual item or person, or several times to a fleet, inventory or group.

UNLIKELY: (D); Unlikely to occur.

RISK LEVELS

EXTREMELY HIGH: Loss of ability to accomplish mission

HIGH: Significantly degrades mission capabilities in items of required mission standards

MEDIUM: Degrades mission capabilities in terms of required mission

LOW: Little or no impact on mission accomplishment

Enclosure (3)

WORKCENTER CHECKLIST

Note: Circle the number that applies for each question. More than one number per question can be circled. Add all the numbers and put the sum in RAC space provided to the right of each question. Answer each question honestly. **This checklist is used to identify the risk level in a workcenter.**

1. Has Quality Assurance completed a quarterly workcenter safety audit and performed a follow up inspection to ensure all discrepancies were corrected?

Add 5 for each discrepancy not corrected.

Add 4 if no record of audit or inspection.

Add 3 if follow up inspection not completed.

RAC _____

2. Are OPNAVINST 3750.6, Naval Aviation Safety Program, OPNAVINST 5100.19 and/or OPNAVINST 5100.23, NAVOSH AFLOAT/ASHORE, and MCO 5100.8E available for use in conducting the unit's safety program?

Add 5 for each directive not available.

RAC _____

3. Are monthly safety meetings being conducted?

Add 5 if no.

Add 4 for each meeting missed in last 12 months.

RAC _____

4. Is safety training being conducted for all personnel in workcenter?

Add 5 for each person not receiving training.

RAC _____

5. Are reports made on all accidents/incidents and unsafe practices within the department?

Add 5 if no.

Add 4 for each accident/incident not reported.

RAC _____

6. Do eye wash stations meet all safety requirements and periodically activated and functionally tested in accordance with the required periodic maintenance?

Add 5 if no.

Add 4 for each missed inspection in last 12 months.

RAC _____

7. Are safety posters and literature disseminated and posted in the workcenters?

Add 5 if no.

Add 4 if outdated.

RAC _____

WORKCENTER CHECKLIST

8. Is proper personal protective equipment (PPE) available?

Add 10 if PPE not available to all personnel.

Add 5 for each person not provided PPE.

Add 4 if personnel using unserviceable PPE.

RAC _____

9. Are personnel using PPE when required?

Add 10 if no.

RAC _____

10. Is training conducted in the PPE program?

Add 10 if no.

Add 5 for each person missing training.

Add 4 for each training session missed in last 12 months.

RAC _____

11. Have all personnel received indoc training on Haz/Mat and the unit's safety program?

Add 10 for no.

Add 5 for each person not receiving training.

RAC _____

12. Does the workcenter have any inherent safety hazards?

Add 5 for yes.

Add 2 for yes but with safety controls in place.

RAC _____

13. TOTAL RAC

TOTAL OF #1-12 _____

If RAC is 0-39, Low Risk

If RAC is 40-60, Medium Risk

If RAC is over 60, High Risk

14. Risk control measures.

Conduct workcenter safety training within 5 days. Subtract 3

Convene a squadron safety council meeting. Subtract 3.

Conduct a squadron safety standdown. Subtract 5.

Have a safety survey conducted on the workcenter. Subtract 3.

Have QA conduct a safety audit of the workcenter. Subtract 3.

Ensure workcenter safety rep is properly trained. Subtract 3. Total _____

15. Adjusted RAC.

a. RAC of #13 _____

b. Minus #14 _____

c. Adjusted RAC _____

If RAC is 0-39, Low risk.

If RAC is 40-60, Medium risk.

If RAC is over 60, High risk.

* 48 / 24 Hour Risk Assessment Items

AB 1 AIRCRAFT STATUS	YES	NO
Is Aircraft Up Grapes Affect Mission?	M	L
Is A/A Msn, does aircraft loadout consist of ext tanks or any A/G ordnance?	M	L
Is A/C load out in compliance with Vol II?	L	M

AB 2 LAUNCH / RECOVERY	YES	NO
Is take off plan appropriate for Wx/Config?	L	H
Is Indz Plan appropriate for Wx?	L	H
Is lost sight / No radar plan?	L	M
Is CN Prox. Plan briefed	L	M
Is performance / Eng Numbers briefed for each configuration? (Excl PMICF)	L	M
Is approach plan appropriate for Wx / Config?	L	M
Is suitable approach available?	L	M
Is hard condition other than light?	M	L
Is level II / III Demo at an AFLD	M	H

AB 3 TRANSIT	YES	NO
Is Pilot / Controller language barrier?	L	L
Is information appropriate for weather?	L	M
Is PNAV 3710 fuel requirements met?	L	M
Is IRSPACE: AS APPLICABLE:	L	M

Is Instrument Flight Rules	L
Is FR with Radar Advisories	L
Is scheduled MIR	L
Is FR Mutual use (MOA)	L
Is FR Mutual use (Warn / Rest Area)	L
Is noncontrolled Airspace	L

AB 4 AERIAL REFUELING	YES	NO
Is any?	L	L
Is MC?	L	L
Is lots current (90 days) on platform?	L	M
Is low altitude?	M	L
Is anned fuel allowed to suitable divers?	L	M
Is R Track comm and rdvs plan defined?	L	M
Is receiving aircraft deconfliction briefed?	L	M

TAB 5 AIR TO GROUND	YES	NO
Is Familiar and / or controlled Range?	L	L
Is SOP Currency Day / Night met?	L	M
Is Wx above mission mins?	L	M
Is Training rules briefed?	L	M
Is Tactical abort criteria briefed?	L	M
Is NVD training rules briefed, if applicable?	L	M
Is Fuze / Ord restrictions briefed?	L	M
Is Z diagrams briefed and appropriate?	L	M
Is Ralt plan IAW SOP?	L	M
Is Friendly positions clearly delineated?	L	M
Is Target area deconfliction briefed?	L	M

TAB 6 AIR TO AIR	YES	NO
Is SOP currency met	L	M
Is Wx appropriate for mission?	L	M
Is Training rules briefed?	L	M
Is SPINS reduce Midair potential (LFE only)	L	M
Is SPINS briefed?	L	M
Is All maneuvers briefed / understood?	L	M
Is Instructor requirements met?	L	M
Is Aircraft lighting / NVD rules briefed (if applicable)	L	M
Is AIRCREW core current or designation syllabus fit?	L	L

TAB 7 SPEC WEAPONS DELIVERIES	YES	NO
Is Laser approved range?	L	M
Is Midair / CFIT hazard briefed?	L	M
Is Delivery appropriate for Wx / weapon?	L	M
Is Range appropriate for weapon footprint?	L	H
Is Designator hazards briefed?	L	M

TAB 8 NIGHT SYSTEMS	YES	NO
Is AIRCREW NSQ or Syllabus flight?	L	M
Is NSI in flight if required?	L	M
Is Light level / Moon angle IAW SOP?	L	M
Is NVD Training rules briefed?	L	M
Is NVD visual illusions briefed?	L	M
Is Aircraft lighting briefed?	L	M
Is Wx appropriate for mission?	L	M
Is Low Alt / LAT area CHUMd / Familiar?	L	M
Is Sensor usage briefed / appropriate?	L	M
Is Radalt plan IAW SOP?	L	M

TAB 9 LOW ALTITUDE TACTICS	YES	NO
Is AIRCREW core current or Syllabus flight?	L	M
Is LAT(I) in flight if required?	L	M
Is LAT approved airspace?	L	M
Is Wx and Radalt plan IAW SOP?	L	M
Is Training rules briefed?	L	M
Is BASH condition IAW SOP?	L	M
Is Maneuvers Briefed / understood?	L	M
Is Low Alt / LAT area CHUMd / Familiar?	L	M

TAB 10 EAF / FBO OPERATIONS	YES	NO
Is Control tower in operation?	L	M
Is Arresting gear position briefed?	L	M
Is Performance / Engine numbers briefed?	L	M
Is Surface type, length, & width briefed?	L	M
Is FOD prevention briefed?	L	M
Is Fuel & Water available if required	L	M
Is Visual / Instrument Idg. aids available?	L	M
Is LSS / Recovery crew on station?	L	M

TAB 11 FCPL	YES	NO
Is Control tower in operation?	L	M
Is Performance / Engine numbers briefed?	L	M
Is Currency IAW VSTOL LSO NATOPS and applicable SOP's	L	M
Is Visual / Instrument Idg. aids available?	L	M
Is LSO / Recovery crew on station	L	M
Is FOD prevention briefed?	L	M

TAB 12 SHIP OPS	YES	NO
Is SAR available	L	M
Is Blue water Operations	M	L
Is Currency IAW VSTOL LSO NATOPS and applicable SOP's	L	M
Is Visual / Instrument Idg. aids available?	L	M
Is LSO on station	L	M
Is Performance / Engine numbers briefed?	L	M
Is Dry VL performance < 1000 #	M	L

Identified Hazard	Risk Value	Control Measure(s)	New Risk Value	CO's Signature
	L M H EX		L M H EX	
	L M H EX		L M H EX	
	L M H EX		L M H EX	
	L M H EX		L M H EX	

VMA RISK ASSESSMENT WORKSHEET

1. Overall Risk is the highest risk factor in each submatrix.
2. Multiple elements of one category may raise the mission risk category to the next highest level.
3. Squadron CO shall address all risk increases after flight schedule is signed.
4. Risk Levels: L - Low; M - Medium; H - High; EX - Extremely High

Aircrew:

Pilot
Dash 2
Dash 3
Dash 4

Date:
Event #:

48 HOURS			
Unit Transition Condition	Yellow	Normal	
1. COMMANDER RELATIONSHIPS			
MAW	L	L	
MAGTF	L	L	
Joint/Combined		M	
Outside Agencies		M	
2. MISSION PLANNING			
Mission Planning Time	>6	>2	>1
In House Mission	L	L	L
MAGTF	L	M	M
Joint/Combined	L	M	H
Outside Agencies	L	M	H
3. AIRCRAFT			
Mission Type	Trng	Chngncy	
In House Mission	L	M	
MAGTF	L	M	
Joint/Combined	L	M	
Outside Agency	L	H	

24 HOURS			
1. SPECIFIC MISSION PLANNING			
Mission Tabs	Tab	Risk Level for Specific Mission*	
Aircraft Status	1	L	M
Launch/Recovery	2	L	M
Transit	3	L	M
Aerial Refueling	4	L	M
Air to Ground	5	L	M
Air to Air	6	L	M
Spec Weps Delivery	7	L	M
Night Systems	8	L	M
LAT	9	L	M
EA/FSO Ops	10	L	M
FCLP	11	L	M
Ship Ops	12	L	M
2. AIRCRAFT			
Planned Flight Duration	<4.0	4.0-6.5	>6.5
Day	L	L	M
Night	L	L	M
IMC	L	L	M
NVG	L	M	M
Brief Time	0500-2100	2100-0500	
Personal Factors	Adequate	Marginal	Suspect
Health	L	M	M
Personal/Family	L	M	M
Collateral Duties	L	L	M
Crew Rest	>= 10	< 10	
Crew Flight Day	Day <12hr	Day >12hr	Night <10hr
	L	M	M
3. REVIEW OF 24 HOUR ASSESSMENT			
Command Relationships		L	M
Mission Planning		L	M
Aircraft Factors		L	M
Overall Risk Level		L	M
* See Mission Tabs to determine overall risk level for event.			

OPS REPS SIGNATURE
DSS REPS SIGNATURE

24 HR OVERALL RISK LEVEL	L	M	H	EX
--------------------------	---	---	---	----

CO SIGNATURE

FLIGHT BRIEF			
1. ENVIRONMENTAL FACTORS			
Minimums	VMC	>MINS	<MINS
Launch	L	L	M
Enroute	L	L	M
Op Area	L	M	M
Recovery	L	L	M
Conditions	None	Light	Moderate
Idling	L	L	L
Turbulence	L	L	L
T'Storm	L	L	L
See State/Winds/Water Temp	SOP	Non-SOP	
	L	M	
2. REVIEW OF 24 HOUR ASSESSMENT			
Command Relationships		L	M
Mission Planning		L	M
Mission Type		L	M
Aircraft Factors		L	M
T&R Proficiency		L	M
NATOPS/Instrument		L	M
Flight Currency		L	M
Specific Mission Planning		L	M
Mission Tabs		L	M
Aircraft Fatigue Factors		L	M
Planned Fit Duration		L	M
Brief Time		L	M
Personal Factors		L	M
Crew Rest		L	M
Crew Day		L	M

FLIGHT LEAD SIGNATURE

FLIGHT OVERALL RISK LEVEL	L	M	H	EX
---------------------------	---	---	---	----

Enclosure (5)

VMAQ RISK ASSESSMENT WORKSHEET

T WORKSHEET

Event #:

Date:

Aircrew: Pilot

ECMO 1

ECMO 2

ECMO 3

Aircrew: Pilot

ECMO 1

ECMO 2

ECMO 3

Aircrew: Pilot

ECMO 1

ECMO 2

ECMO 3

48 HOURS			
Unit Transition Condition	Yellow	Normal	
1. COMMAND RELATIONSHIP			
MAW	L		
MAGTF	L		
Joint/Combined		M	
Outside Agencies		M	
2. MISSION PLANNING			
Mission Planning Time	>6	6>=2	<2
In House Mission	L	L	L
MAGTF	L	M	M
Joint/Combined	L	M	M
Outside Agencies	L	M	H
Mission Type	Trng	Tac Trng	Crngncy
In House Mission	L	L	L
MAGTF			H
Joint/Combined	L	L	H
Outside Agency		M	H
3. AIRCREW FACTORS			
T&R Proficiency	Pilot	ECMO 1	ECMO 2
Current	L	L	L
Non-current / Initial	M	M	L
Prerequisites Met	L	L	L
Prerequisites Not Met	M	M	L
Qualification Flight	M	M	M
NATOPS / Instrument / ACT Currency			
Current	L	L	L
Non-current	M	M	L
Flight Currency			
<=15 days	L	L	L
>15 and <=30 days	L	L	L
>30 days	M	M	L

- Overall Risk is the highest risk factor in each submatrix.
- Multiple elements of one category may raise the mission risk category to the next higher level.
- Squadron CO shall address all risk increases after flight schedule is signed.
- Risk Levels: L - Low; M - Medium; H - High; EX - Extremely High

OPS REPS SIGNATURE

CO SIGNATURE

DSS REPS SIGNATURE

OPS REPS SIGNATURE

DSS REPS SIGNATURE

24 HOURS			
Mission Tabs	Tab	Risk Level for Specific Mission*	
Launch / Recovery	1	L	M
Enroute / Airspace	2	L	M
Formation	3	L	M
Low Level	4	L	M
Aerial Refueling	5	L	M
EW missions	6	L	M
LATT / TACFORM	7	L	M
DEFTAC	8	L	M
EAF	9	L	M
2. AIRCREW FATIGUE FACTORS			
Planned Flight Duration	<3.0	3.0<=5.0	>5.0
Day	L	L	M
Night / IMC	L	L	M
Formation	L	L	M
Brief Time	0500-210 2100-0500		
Personal Factors	Adequate	Marginal	Suspect
Health	L	M	M
Personal/Family	L	M	M
Collateral Duties	L	M	M
Crew Rest	>=10	<10	
Crew Day / Flight Terminates	First 8	>8	
	L	M	
3. REVIEW OF 24 HOUR ASSESSMENT			
Cmd Relationships	L	M	H
Mission Planning	L	M	H
Aircrew Factors	L	M	H
Overall Risk Level	L	M	H
* See Mission Tabs to determine overall risk level for event.			

OPS REPS SIGNATURE

CO SIGNATURE

DSS REPS SIGNATURE

OPS REPS SIGNATURE

FLIGHT BRIEF			
1. WEATHER / ENVIRONMENTAL FACTORS			
Minimums	VMC	>MINS	<MINS
Launch	L	L	M
Recovery	L	L	M
Op Area	L	M	M
Enroute	L	L	M
Conditions	None	Light	Moderate
icing	L	L	L
Turbulence	L	L	L
T'Storm	L	L	L
Sea Water / Air Temp	>=60 / 32	< 60 / 32	
	L	M	
2. MISSION BRIEFED ITEMS			
All Applicable Mission Items Briefed?			
	Yes	No	
	L	M	
3. ADDITIONAL MISSION FACTORS			
Factors	Sched	Unsched	Sched Ch
Flight Scheduling	L	M	M
Launch Delay	<=4 Hrs	>4 Hrs	
	L	M	
4. REVIEW OF 48/24 HOUR RISK ASSESSMENT			
Command Relationships	L	M	H
Mission Planning	L	M	H
Msn Planning Time	L	M	H
Mission Type	L	M	H
Aircrew Factors	L	M	H
T&R Proficiency	L	M	H
NATOPS/Instrument	L	M	H
Flight Currency	L	M	H
Specific Mission Planning	L	M	H
Mission Tabs	L	M	H
Aircrew Fatigue Factors	L	M	H
Planned Flight Duration	L	M	H
Brief Time	L	M	H
Personal Factors	L	M	H
Crew Rest	L	M	H
Crew Day / Flight Ter	L	M	H

MSN CMDR / PIC / FLT LD SIGNATURE

Enclosure (6)

VMAQ RISK ASSESSMENT WORKSHEET

PAGE 2

24 HOUR MISSION TABS			
1. LAUNCH/RECOVERY			
SOP/OPNAV 3710 fuel qmts	YES	NO	
Suitable approach available	L	M	M
Visual landing aid available	L	M	M
Arresting gear available	L	M	M
Pilot/controller language barrier	M	L	M
BASH requirements met	L	M	M
2. ENROUTE/AIRSPACE			
Scheduled airspace	YES	NO	
New to operating area	M	L	M
BASH requirement met	L	M	M
3. FORMATION			
Formation	Section	Division	Mixed
	L	M	M
4. LOW LEVEL			
Route	YES	NO	
MTR scheduled	L	M	M
Chart CHUMed	L	M	M
BASH requirement met	L	M	M
5. AERIAL REQUIRING			
Mission Specifics	YES	NO	
Fuel allows non-emerg divert	L	M	M
Type tanker	Day	Night	
KC-10, L1011, VC-10	L	L	L
KC-130	L	M	M
KC-135	L	M	M
Type tanker track	L	M	M
Static	L	L	L
Low-Level drag	M	H	H
Enroute	L	L	L
Time of Day	Single	Section	Division
Day	L	L	M
Night	L	M	M

24 HOUR MISSION TABS			
6. NEW MISSIONS			
ROE Established (if applicable)	YES	NO	
Defined target	L	M	M
Unescorted	L	M	M
Escorted (Attached)	M		
Escorted (Unattached)	L		
High Alt (>18K' AGL)	L		
Med Alt (5-18K' AGL)	L		
Low Alt (5K-5K' AGL)	M		
Above overcast by >10K'	L		
Above overcast by <10K'	M		
Below Overcast	L		
Night / IMC	L		
7. LATT/TAKEFORM			
Airspace	YES	NO	
Scheduled MTR	L	M	M
Approved LATT route (MTR)	L	M	M
Approved LATT route (Rst Area)	L	M	M
Route chart CHUMed / familiar	L	M	M
BASH requirements met	L	M	M
8. DETAC			
Mission Factors	YES	NO	
1v1 Similar	L		
Any Dissimilar	M		
9. EAF			
Mission Factors	Day	Night	
VFR	L	M	M
IFR	M	M	M
Hot Pits	L	M	M
Hot Seat	L	M	M
Hot Pit / Hot Seat	L	M	M
Short / Long Field Gear avail	L	M	M
Short Field Gear only	H	H	H

MISSION BRIEF ITEMS			
1. LAUNCH/RECOVERY			
T/O appropriate for wx	YES	NO	
T/O and abort data	L	M	M
Formation appropriate for wx	L	M	M
Rndv plan appropriate for wx	L	M	M
Appch plan appropriate for wx	L	M	M
Current NOTAMS checked	L	M	M
Divert hdg / dist / fuel	L	M	M
2. ENROUTE			
T/O plan appropriate for wx	YES	NO	
Formation appropriate for wx	L	M	M
Rndv plan appropriate for wx	L	M	M
SOP/OPNAV 3710 fuel qmts	L	M	M
Appch plan appropriate for wx	L	M	M
Suitable approach available	L	M	M
Route card w/ planned fuel	L	M	M
Joker / bingo fuels	L	M	M
3. MISCELLANEOUS			
Lost sight plan	YES	NO	
SOP LC / LS	L	M	M
RADALT usage	L	M	M
Bird condition field & route	L	M	M
Deconfliction plan	L	M	M
OCF and spm procedures	L	M	M
4. AERIAL REQUIRING			
Mission Specifics	YES	NO	
AR track / comm / mdv briefed	L	M	M

MISSION BRIEF ITEMS			
5. NEW MISSIONS			
ROE briefed (if applicable)	YES	NO	
Each BAM maneuver briefed	L	M	M
G-LOC / FOD check briefed	L	M	M
6. BAM			
Each BAM maneuver briefed	YES	NO	
G-LOC / FOD check briefed	L	M	M
7. LOW LEVEL TAKEFORM / LATT			
Airspace	YES	NO	
Route briefed	L	M	M
Route chart CHUMed / familiar	L	M	M
Tac Turns briefed / understood	L	M	M
G-LOC / FOD check briefed	L	M	M
8. DETAC			
Mission Factors	YES	NO	
Training Rules briefed	L	M	M
Each maneuver briefed	L	M	M
G-LOC / FOD check briefed	L	M	M
Hard Deck			
10K' AGL	L		
5K' AGL	M		
9. EAF			
Mission Factors	YES	NO	
LSO / Pattern entry briefed	L	M	M
EAF specific EPs briefed	L	M	M

MISSION RISK CONTROL MEASURES

Identified Hazard	Risk Value			Phase			Control Measure(s)	New Risk Value	Originator	CO's Initials	
	L	M	H	48	24	FLT BRF					
	L	M	H	EX	48	24	FLT BRF	L	M	H	EX
	L	M	H	EX	48	24	FLT BRF	L	M	H	EX
	L	M	H	EX	48	24	FLT BRF	L	M	H	EX

Notes:

VMFA RISK ASSESSMENT WORKSHEET

Overall Risk is the highest risk in each submatrix.
Multiple elements of one category may raise the mission risk category to the next highest level.
Squadron CO shall address all risk increases after flight schedule is signed.
Risk Levels: L - Low; M - Medium; H - High; EX - Extremely High

48 HOURS			
Flight Transition Condition	Yellow		Normal
COMMAND/REASON/CHIPS			
AW	L		
AGTF	L		
Initial/Combined		M	
Outside Agencies		M	
MISSION PLANNING			
Flight Scheduling			
Scheduled	L		
Unscheduled		M	
Schedule Change		M	
Mission Time	>12	12-16	<6
In House Mission	L	L	L
MAGTF	L	M	M
Joint/Combined	L	M	H
Outside Agencies	L	M	H
Mission Type	Trng	Tac Trng	Cntrng
In House Mission	L	L	M
MAGTF	L	L	M
Joint/Combined	L	M	M
Outside Agency	L	M	H
PILOT FACTORS			
Pilot Proficiency	Pilot	Co-pilot	NFO
Current	L	L	L
Non-current	M	M	M
Prerequisites Met	L	L	L
Prerequisites Not Met	M	M	M
Initial T&R	L	L	L
Qualification Flight	L	L	L
TOPS/Instrument Currency			
Current	L	L	L
Non-current	M	M	M
Flight Currency			
<=15 days	L	L	L
<=30 days	L	M	L
<=45 days	L	M	M
NVG current	L	L	L
NVG non-current	M	M	M
OVERALL RISK LEVEL			
	L	M	H

Date: _____
Event #: _____

24 HOURS			
SPECIFIC MISSION PLANNING			
Core Competency	Tab	Risk Level for Specific Mission*	
Aircrew Currency	1	L	M
Aircrew Status	2	L	M
Launch/Recovery	3	L	M
Transit	4	L	M
Aerial Refueling	5	L	M
Air to Ground	6	L	M
Air to Air	7	L	M
LGB Deliveries	8	L	M
Night Systems	9	L	M
Low Altitude Tactics	10	L	M
EAF Operations	11	L	M
Special Weps Delivery	12	L	M
HARM	13	L	M
FAC(AV/TAC(A)	14	L	M
Carrier Operations	15	L	M
AIRCREW FATIGUE FACTORS			
Planned Flight Duration	<3.0	3.0-5.0	>5.0
Day	L	L	L
Night	L	L	L
IMC	L	L	M
Formation	L	L	M
NVG	L	M	M
Brief Time	0500-2100 2100-2400 2400-0500		
Personal Factors	Adequate	Marginal	Suspect
Health	L	M	H
Personal/Family	L	L	M
Collateral Duties	L	L	M
Crew Rest	>8	8-6	<6
	L	M	H
REVIEW OF 48 HOUR ASSESSMENT			
Command Relationships		L	M
Mission Planning		L	M
Aircrew Factors		L	M
Overall Risk Level		L	M
* See Mission Tabs to determine overall risk level for event.			
24 HR OVERALL RISK LEVEL			
	L	M	H

OPS REPS SIGNATURE _____
DSS REPS SIGNATURE _____
CO SIGNATURE _____

MSN CMDR/PICT/FLT LD SIGNATURE

Enclosure (7)

Aircrew: Pilot _____
WSO _____

FLIGHT BRIEF			
WEATHER/ENVIRONMENTAL FACTORS			
Minimums	VMC	>MINS	<MINS
Launch	L	L	H
Enroute	L	L	M
Op Area	L	M	M
Recovery	L	L	H
Conditions	None	Light	Moderate
Icing	L	M	H
Turbulence	L	L	M
T'Storm	L	L	L
Sea State/Winds/Water Temp	<NATOPS>	>NATOPS	
2. AIRCRAFT STATUS			
Assigned Aircraft	MC/FMC	FCF	
3. ADDITIONAL MISSION FACTORS			
Factors	<2 HRS	2-4 HRS	>4 HRS
Weather Delay	L	L	M
Maintenance Delay	L	L	M
4. REVIEW OF 24 HOUR RISK ASSESSMENT			
Command Relationships		L	M
Mission Planning		L	M
Flight Schedule		L	M
Msn Planning Time		L	M
Mission Type		L	M
Aircrew Factors		L	M
T&R Proficiency		L	M
NATOPS/Instrument		L	M
Flight Currency		L	M
Specific Mission Planning		L	M
Core Competency		L	M
Aircrew Fatigue Factors		L	M
Planned Fit Duration		L	M
Brief Time		L	M
Personal Factors		L	M
Crew Rest		L	M
5. OVERALL RISK LEVEL			
	L	M	H

MSN CMDR/PICT/FLT LD SIGNATURE

Enclosure (7)

TAB 1 AIRCREW CUE

TIME SINCE LAST FLIGHT	REQ'S
15-31 DAYS	A,B
32-180 DAYS	A,B,C
>180 DAYS	Refer to SOP

- A. F-18 Sim prior to flight. Review R&I.
- B. Review open/closed book
- C. Fly a day, VMC, FAM, INST, or AWI mission

TAB 2 AIRCRAFT STATUS

Do Aircraft Up Grips Affect Mission?	YES	NO
If A/A Msn, does aircraft loadout consist of > 2 tanks or any A/G ordnance?	M	L
Is A/C loadout asymmetrical?	M	L
Is A/C loadout in compliance with Vol IV?	L	H

TAB 3 LAUNCH/RECOVERY

Take off plan appropriate for Vwx/Config?	YES	NO
Rndz Plan appropriate for Wx?	L	EX
Lost sight/ no radar plan?	L	H
Performance Numbers briefed for each configuration?	L	H
Approach plan appropriate for Vwx/Config?	L	H
Suitable approach available?	L	H
Visual landing aids available?	L	M
Railt plan briefed?	L	H
Arresting gear available?	L	M
Bird Condition other than light?	M	L

TAB 4 TRANSIT

Pilot/ Controller language barrier?	YES	NO
Formation appropriate for weather?	M	L
SOP and OPNAV 3710 fuel reqs met?	L	H
Anti-Exposure suits req by OPNAV 3710?	M	L
Is mission a demo, flyby, or photo ex?	H	L
AIRSPACE: Select highest risk		
Instrument Flight Rules	L	
VFR with Radar Advisories	L	
Scheduled MTR	M	
VFR Mutual Use	M	
Uncontrolled Airspace w/in ACO	M	
Uncontrolled Airspace	H	

TAB 5 AERIAL REFUELING

Day?	YES	NO
VMC?	L	M
Pilots current (90 days) on platform?	L	M
Low altitude?	M	L
Planned fuel allows non-emer divert?	L	H
AR Track, comm, and rdvs plan defined?	L	H
Receiving aircraft deconfliction briefed?	L	H

TAB 6 AIR TO GROUND

Familiar and/or controlled Range?	YES	NO
SOP Currency met?	L	H
Wx above Mission mins?	L	H
Training rules briefed?	L	H
Tactical abort criteria briefed?	L	H
NVD trng. rules briefed, if applicable?	L	H
Fuze / ordnance restrictions briefed?	L	H
Z diagrams briefed and appropriate?	L	H
Railt plan IAW SOP?	L	H
Friendly positions clearly delineated?	L	H
Target area deconfliction briefed?	L	H
Sensor usage briefed / appropriate?	L	H

TAB 7 AIR TO AIR

SOP currency met?	YES	NO
Wx appropriate for mission?	L	H
Training rules briefed?	L	H
SPINS briefed?	L	H
SPINS reduce Midair potential?	L	EX
All maneuvers briefed / understood?	L	H
Instructor requirements met?	L	H
Aircraft lighting / NVD rules briefed (if app)	L	H
Aircrew core current or desig. syllabus flt?	L	M

TAB 8 LGB DELIVERIES

Laser approved range?	YES	NO
Midair / CFIT hazards briefed?	L	H
Delivery appropriate for Wx / weapon?	L	H
Aircrew core current with weapon?	L	M
Range appropriate for weapon footprint?	L	EX
Designator hazards briefed?	L	EX

TAB 9 NIGHT SYSTEMS

Aircrew NSQ or Syllabus flight?	YES	NO
NSI in flight if Req?	L	H
Light level / Moon angle IAW SOP?	L	M
NVD Training rules briefed?	L	H
NVD visual illusions/spatial dis. briefed?	L	H
Aircraft lighting briefed?	L	H
Wx appropriate for mission?	L	H
Low alt/ LAT area CHUM'd / Familiar?	L	H
Sensor usage briefed / appropriate?	L	H
Radtat plan IAW SOP?	L	H

TAB 10 LOW ALTITUDE TACTICS

Aircrew core current or Syllabus flight?	YES	NO
LAT(I) in flight if req?	L	H
LAT approved airspace?	L	H
Wx and Radalt plan IAW SOP?	L	H
Training rules briefed?	L	H
BASH condition IAW SOP?	M	H
Maneuvers Briefed / understood?	L	H
Low alt/ LAT area CHUM'd / Familiar?	L	H
If night LAT, has crew flown route during day in last 30 days?	M	H

TAB 11 EAF OPERATIONS

Control tower in operation?	YES	NO
Abort arresting gear available?	L	M
Performance Margin suitable for configuration and runway length?	L	H
FOD prevention briefed?	L	H
Performance #'s briefed for config.?	L	H
Visual / Instrument Idg. aids avail.?	L	M
LSO / Recovery crew on station?	L	M

TAB 12 SPEC WEPS DELVY

Aircrew core current with weapon?	YES	NO
Wx Appropriate for delivery profile?	L	M
Range appropriate for deliv. profile and weapon footprint?	L	EX
Midair / CFIT hazards briefed?	L	H
Rel. auth. / range procedures clear?	L	H

TAB 13 HARM

Aircrew core current with weapon?	YES	NO
Midair / CFIT hazards briefed?	L	M
Ambiguous Elint identified or Fratricide Risks reduced?	L	EX
Rel. auth. range procedures clear?	L	H

TAB 14 FAC(A)/TAC(A)

Aircraft flow and supporting arms deconfliction plan briefed?	YES	NO
FAC(A) qualified or undergoing syllabus under supervision?	L	EX
Scheme of maneuver and fire support plan understood?	L	H

MISSION RISK EVALUATION

RISK	CONTROL MEASURE	CO'S SIGNATURE

GENERAL INFILIGHT CONTROL MEASURES

1. Fly alternate mission.
2. Terminate tactical portion. Reevaluate risks.
3. Reduce mission complexity.
4. Raise minimums.
5. Change Op Area.

*Asterix items apply to 48 / 24 Hour review.
ALL items apply to Flight Lead review.

Enclosure (7)

1. Overall Risk is the highest risk factor in each submatrix.

2. Multiple elements of one category may raise the mission risk category to the next highest level.

3. Squadron CO shall address all risk increases after flight schedule is signed.

4. Risk Levels: L - Low; M - Medium; H - High; EX - Extremely High

HAC
CO-PILOT
AIRCREW

Date: _____

Event #: _____

48 HOURS - FLIGHT BRIEF			
Unit Transition Condition	Yellow	Normal	
1. COMMAND RELATIONSHIPS			
MAW	L		
MAGTF	L		
Joint/Combined		M	
Outside Agencies		M	
2. MISSION PLANNING			
Flight Scheduling	Scheduled	L	
	Unscheduled		M
	Schedule Change		M
Mission Planning Time	>12 Hrs	12-6 Hrs	Hrs or Less
In House Mission	L	L	L
MAGTF	L	L	M
Joint/Combined	L	M	H
Outside Agencies	L	M	H
Mission Type	Trng	Frag	Contingency
In House Mission	L	L	M
MAGTF	L	L	M
Joint/Combined	M	M	M
Outside Agency	M	M	H
Mission Precedence			
Routine	L		
Not Routine	H		
3. AIRCRAFT STATUS			
T&R Proficiency	HAC	Co-Pilot	C/C
Current	L	L	L
Non-current	M	M*	M*
NATOPS/Instrument Currency			
Current		L	L
Non-current		M*	M*
Flight Currency			
<=15 days	L	L	L
16 - 30 days	M	M*	M*
>=31 days	H	M*	M*
NVG current	L	L	L
NVG non-current	M	M**	M**
* Risk = L if training flight with qualified instructor			
**Risk = L if training flight with qualified instructor and no PAX			

PREPARER'S SIGNATURE _____

MAG/MEU CO'S SIGNATURE _____

24 HR - SQDN CO'S INITIALS _____

SQDN CO'S SIGNATURE _____

24 HOURS - FLIGHT BRIEF			
1. SPECIFIC MISSION PLANNING			
Mission Tabs (See back page)	Tab	Risk Level for Specific Mission*	
General	1	L	M
Fam/Inst/FC/LP	2	L	M
VIP Support	3	L	M
Form	4	L	M
TERF	5	L	M
CAL	6	L	M
Ordnance	7	L	M
Shipboard Ops	8	L	M
PMCF	9	L	M
DM	10	L	M
HIE	11	L	M
NBC	12	L	M
Externals	13	L	M
AR	14	L	M
TAC	15	L	M
Fuel Planning	16	L	M
* See Mission Tabs to determine overall risk level for event.			
2. AIRCREW FATIGUE FACTORS			
Planned Flight Duration (Pilot's)	4.0 or Less	Over 4.0	
Day	L	M	
Night	L	M	
IMC	L	M	
Formation	L	M	
NVG	L	M	
Enlisted aircrew flight time	6.0 or Less	Over 6.0	
Personal Factors (entire crew)	Adequate	Marginal	Suspect
Health	L	M	H
Personal/Family	L	M	H
Crew Day (10 Hours)	First 2/3	Last 1/3	Extension
	L	M	M
3. REVIEW OF 24 HOUR ASSESSMENT			
Command Relationships		L	M
Flight Scheduling		L	M
Mission Planning		L	M
Aircrew Factors		L	M
Overall Risk Level		L	M

FLIGHT BRF - ODO'S INITIALS _____

HAC SIGNATURE _____

FLIGHT BRIEF			
1. WEATHER/ENVIRONMENTAL FACTORS			
Minimums	>1000/3	500ft-1000/	<500/1
NVG VFR	L	H	EX
IFR	L	L	L
NIGHT VFR	L	H	EX
DAY VFR	L	L	M
2. AIRCRAFT STATUS			
PMC	L	M	H
FMC	L	L	L
3. REVIEW OF 24 HOUR RISK ASSESSMENT			
Command Relationships		L	M
Mission Planning		L	M
Aircrew Factors		L	M
Specific Mission Planning			
Mission Tabs (review)		L	M
Aircrew Fatigue Factors			
Fit Duration (Pilot's)		L	M
Enl aircrew Fit Time		L	M
Personal Factors		L	M
Crew Day		L	M

FLIGHT BRIEF OVERALL RISK LEVEL: L M H EX

MISSION RISK CONTROL MEASURES

Identified Hazard	Risk Value			Phase			Control Measure(s)	New Risk Value			Originator	CO's Initials
	M	H	EX	48	24	FLT BRF		L	M	H		
	M	H	EX	48	24	FLT BRF		L	M	H		
	M	H	EX	48	24	FLT BRF		L	M	H		
	M	H	EX	48	24	FLT BRF		L	M	H		
	M	H	EX	48	24	FLT BRF		L	M	H		

OTES:

Tabs
Briefing Tool
For Aircrew Use Only

TAB 1: GENERAL	Yes	No
Does mission require deviation from SOP?	M	L

TAB 2: FAMILY SUPPORT	Yes	No
TC - U.S. ?	L	M

TAB 3: VIP SUPPORT	Yes	No
P at controls?	M	L
by?	L	M

TAB 4: FORM	Yes	No
Similar aircraft?	M	L
More than 2 Aircraft?	M	L
Unaided?	H	L

TAB 5: TERE	Yes	No
Per populated area?	M	L
Unaided route?	L	H
Unaided?	M	L
RF w/in last 15 days?	L	M
Unaided chart for route?	L	H
by?	L	M

TAB 6: OAL	Yes	No
Unaided?	L	M
Unaided?	M	L
Unaided?	M	L

TAB 7: ORDNANCE	Yes	No
Ordnance used (Ammo, ALE)?	M	L
Lasers used?	M	L

TAB 8: SHIPBOARD OPS	Yes	No
U.S. Ship?	L	M
Unaided?	M	L
NVG compatible deck lighting?	L	M

TAB 9: PMCF	Yes	No
Day/MNC?	L	M

TAB 10: DM	Yes	No
Fit altitude < 200 ft?	M	L
# Friendly aircraft - 2 or more?	M	L
# Aggressor aircraft - 2 or more?	M	L
U.S. Range Control?	L	M
Free play allowed?	M	L

TAB 11: HIE	Yes	No
HIE?	M	L
Is DZ Bldg/Ship/Structure?	M	L
Multi-aircraft?	M	L
ITG in-zone?	L	M
Day?	L	M

TAB 12: NBC	Yes	No
Both pilots masked at same time?	M	L
OAT > 80F?	M	L
> 30 mins with mask on?	M	L

TAB 13: EXTERNALS	Yes	No
Load certified?	L	M
Load weight <= 15,000 lbs?	L	M
Power margin < 10%?	M	L
ITG in zone?	L	M
DOD operating area?	L	M
Unaided?	M	L

TAB 14: AR	Yes	No
Unit SOPs briefed?	L	M
Multiple tankers?	M	M
Multiple receivers?	M	L
Receiver with ext load?	M	L
Tanker NVG compatible?	L	M
WX > 5000/5?	L	M

TAB 15: TAC	Yes	No
Dissimilar A/C?	M	L
Multi-section?	M	L
Unaided?	M	L
Multi-mission tasking?	M	L
* Refer to all other applicable tabs.		

TAB 16: FUEL PLANNING	Yes	No
On deck with < 2000 lbs fuel?	M	L

HAZARD ANALYSIS WORKSHEET

HAZARD	CAUSES	RISK LEVEL	CONTROL MEASURES	RISK W/ CONTROLS	SUPERVISORS

1 Jun 1999

CONDITION YELLOW (CY) PROCESS

PRE-DEPLOY/
TRNG EX

DELIBERATE ORM, PHA, CONTROL
MEASURES, MINIMUM OPERATING
CONDITIONS:
CONDITION YELLOW: PUBLISHED IN LOI

SET
CY 7 DAYS PRIOR
PASS CY PLAN
TO CG AND MAG CO

EXECUTION

MOVEMENT TO AO, ARRIVE IN AO,
DELIBERATE PLANNING/ORM

ACCOMPLISH CY
CRITERIA:
COURSE RULES,
ORD REGS,
SAND TABLES,
NIGHT LABS,
ETC.

CLIMATIZE

IAW ESTABLISHED/PUBLISHED CRITERIA
IN LOI: COMFORT LEVEL, AREA FAMS,
ETC.

CY BRIEF

MSG/EMAIL/PHONE TO CG AND MAGE CO
TO REQUEST CY BE LIFTED

CY LIFTED

RESUME NORMAL OPERATIONS